

CLAIMS

What is claimed is:

~~1. A telecommunications system comprising:~~

~~an originating circuit-switched network for
providing originating signals in response to voice input;
an originating gateway computer for converting
said originating signals into packets of digital data,
a terminating gateway computer for converting said
digital packets into terminating signals,
a terminating circuit-switched network for
providing voice output in response to said terminating signals,
and
a packet-switched network for transmitting said
digital packets from said originating gateway computer to said
terminating gateway computer, at least one of said originating
and terminating gateway computers comprising a component for
routing said digital packets through said packet-switched network
from said originating gateway computer to said terminating
gateway computer.~~

2. A telecommunications system according to claim 1,
wherein said originating gateway computer comprises a component
for compressing said digital data, and wherein said terminating
gateway computer comprises a component for decompressing said
digital data.

3. A telecommunications system according to claim 1,
wherein said originating gateway computer comprises a component

for encrypting said digital data, and wherein said terminating gateway computer comprises a component for decrypting said digital data.

a 4. A telecommunications system according to claim 1, wherein said terminating gateway computer comprises a terminating buffer component for storing said digital packets prior to the conversion thereof into said terminating voice signals.

5 5. A telecommunications system according to claim 4, wherein said terminating gateway computer further comprises a component for rearranging said stored digital packets to maintain a proper packet order.

6. A telecommunications system according to claim 1, wherein said routing component provides said routing in response to dialed digits.

7. A telecommunications system according to claim 1, wherein said routing component provides said routing in response to spoken digits.

8. A telecommunications system according to claim 1, wherein said terminating circuit-switched network is capable of providing first return signals to said terminating gateway computer in response to return voice input, wherein said terminating gateway computer comprises a component for converting said first return signals into packets of return digital data; wherein at least one of said originating and terminating gateway computers comprises a component for routing said return packets through said packet-switched network from said terminating

10 gateway computer to said originating gateway computer; and wherein said originating gateway computer comprises a component for converting said return packets into second return signals.

a 9. A telecommunications system according to claim 8, wherein said originating gateway computer comprises an originating buffer component for storing said return packets prior to conversion thereof into said second return signals.

10. A telecommunications system according to claim 9, wherein said originating gateway computer further comprises a component for rearranging said stored return packets to maintain a proper packet order.

on 11. A telecommunications system comprising:

an originating network for providing digital packets corresponding to originating signals produced in response to voice input,

sub 15 a gateway computer for converting said digital packets into terminating signals,

a circuit-switched network for providing voice output in response to said terminating signals, and

10 a packet-switched network for transmitting said digital packets from said originating network to said gateway computer, at least one of said originating network and said gateway computer comprising a component for routing said digital packets through said packet-switched network from said originating network to said gateway computer.

12. A telecommunications system according to claim 11,

wherein said originating network comprises a component for compressing said digital data, and wherein said gateway computer comprises a component for decompressing said digital data.

13. A telecommunications system according to claim 11, wherein said originating network comprises a component for encrypting said digital data, and wherein said gateway computer comprises a component for decrypting said digital data.

14. A telecommunications system according to claim 11, wherein said gateway computer comprises a buffer component for storing said digital packets prior to the conversion thereof into said terminating voice signals.

15. A telecommunications system according to claim 14, wherein said gateway computer further comprises a component for rearranging said stored digital packets to maintain a proper packet order.

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16. A telecommunications system according to claim 11, wherein said routing component provides said routing in response to data received from said gateway computer.

17. A telecommunications system according to claim 11, wherein said routing component provides said routing in response to a typed input from a computer keyboard.

18. A telecommunications system according to claim 11, wherein said circuit-switched network is capable of providing first return signals to said gateway computer; wherein said gateway computer comprises a component for converting said first return signals into packets of return digital data; wherein at

least one of said originating network and said terminating gateway computer comprises a component for routing said return packets through said packet-switched network from said gateway computer to said originating network; and wherein said
10 originating network comprises a component for converting said return packets into second return signals.

a 19. A telecommunications system according to claim 16,
wherein said originating network comprises a buffer component for storing said return packets prior to conversion thereof into said second return signals.

20. A telecommunications system according to claim 19,
wherein said originating network further comprises a component for rearranging said stored return packets to maintain a proper packet order.

21. A telecommunications system comprising:
a terminating network for providing voice output in response to terminating signals corresponding to terminating digital packets and for providing return digital packets
5 corresponding to return signals produced in response to voice input,

a gateway computer for converting said return digital packets into return signals,

10 a circuit-switched network for providing voice output in response to said return signals, and

a packet-switched network for transmitting said return digital packets from said terminating network to said

gateway computer and for transmitting said terminating digital
packets from said gateway computer to said terminating network,
15 at least one of said terminating network and said gateway
computer comprising a component for routing said digital packets
15 through said packet-switched network between said terminating
network and said gateway computer.

~~22. A telecommunications method comprising steps of:~~

providing digital packets for transmission from an
originating network, said digital packets corresponding to
originating signals produced in response to voice input,

5 transmitting said digital packets from said
originating network to a gateway computer through a packet-
switched network, at least one of said originating network and
said gateway computer comprising a component for routing said
digital packets through said packet-switched network from said
10 originating network to said gateway computer,

converting said digital packets into terminating
signals for transmission from said gateway computer, and

transmitting said terminating signals through a
circuit-switched network for providing voice output in response
to said terminating signals.

add a4
add b1

add 3